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Application No. 09/994,899
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## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the 2003 application:

## **LISTING OF CLAIMS:**

- 1. (Original) A method for recovering a titanium compound, comprising bringing a waste solution containing a titanium alkoxide into contact with a halogenating agent to convert the titanium alkoxide to a titanium halide and then distilling the solution containing the titanium halide to recover the titanium halide from the solution.
- 2. (Previously presented) A method for recovering a titanium compound, comprising distilling a waste solution containing a titanium alkoxide and a titanium halide to recover a part of the titanium halide from the waste solution, bringing a residue in a distiller after the distilling into contact with a halogenating agent to convert the titanium alkoxide to a titanium halide, and then distilling the solution containing the titanium halide to recover the titanium halide from the solution.
  - 3. (Canceled)

- 4. (Original) A process for preparing a titanium halide, comprising bringing a waste solution containing a titanium alkoxide into contact with a halogenating agent to convert the titanium alkoxide to a titanium halide.
- 5. (Previously presented) A process for preparing a titanium halide, comprising distilling a waste solution containing a titanium alkoxide and a titanium halide to recover a part of the titanium halide from the waste solution, and bringing a residue in a distiller after the distilling into contact with a halogenating agent to convert the titanium alkoxide to a titanium halide.
  - 6. (Canceled)
  - 7. (Canceled)
  - 8. (Canceled)
- 9. (Previously presented) The method for recovering a titanium compound as claimed in claim 1, wherein the waste solution is a solution formed when a catalyst for polymer production or a catalyst component for polymer production is prepared.

- 10. (Previously presented) The method for recovering a titanium compound as claimed in claim 2, wherein the waste solution is a solution formed when catalyst for polymer production or a catalyst component for polymer production is prepared.
- 11. (Previously presented) The process for preparing a titanium halide as claimed in claim 4, wherein the waste solution is a solution formed when a catalyst for polymer production or a catalyst component for polymer production is prepared.
- 12. (Previously presented) The process for preparing a titanium halide as claimed in claim 5, wherein the waste solution is a solution formed when a catalyst for polymer production or a catalyst component for polymer production is prepared.
- 13. (Previously presented) A process for preparing a catalyst for polymer production, comprising:

recovering titanium halide according to the method of claim 1; and preparing a catalyst for polymer production with the titanium halide.

14. (Previously presented) A process for preparing a catalyst for polymer production, comprising:

recovering titanium halide according to the method of claim 2; and preparing a catalyst for polymer production with the titanium halide.

15.	(New	) The process for preparing a titanium halide as cla	imed in claim 4,
wherein the halogenating agent is selected from the group consisting of:			
	(a)	a metallic halide represented by the following form	nula (i):
	$Mx_n$		(i)
	where	ein M is selected from Li, Be, Na, Mg, Al, K, Ca, S	Sc, V, Cr, Mn, Fe,
Ni, Cu, Zn, Ga, Pd Sn,			
	X is F, Cl, Br or I, and		
	n is a number satisfying a valence of M;		
	(b)	a non-metallic halide represented by the following	formula (ii):
	$A = BX_{m} $ (ii)		(ii)
	wherein A is an oxygen atom or a sulfur atom,  B is a carbon atom, a sulfur atom or a phosphorus atom,  X is a halogen, and  m is a value obtained by subtracting 2 from the valence of B;		
	(c)	an acid halide represented by the following formula	la (iii):
	R-(C=	=O)X	(iii)
	wherein R is a hydrocarbon group, and X is a halogen; and		
	(d)	a halogenated hydrocarbon represented by the foll	owing formula (iv)
	$R_pCX$	<b>4-</b> p	(iv)

wherein R is a hydrocarbon group,

X is a halogen, and

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p is an integer from 0 to 3.